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San Augustine Coal Area
Management Framework Plan Amendment/Environmental
Assessment (MFPA/EA)

Prepared by

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BLM-NM-PT-84-025-4112

NOTICE

This Draft Management Framework Plan Amendment/Environmental Assessment (MFPA/EA) should be retained to be used in conjunction with the Final MFPA/EA. The Final will incorporate this document by reference and include the modifications and corrections which should be made to the Draft as a result of public comment.

The Final MFPA/EA will include a record of public comments on this Draft and the responses to those comments.

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

DRAFT

SAN AUGUSTINE COAL AREA AMENDMENT/ENVIRONMENTAL ASSESSMENT

Type of Action: (x) Administrative () Legislative

Abstract: The San Augustine Coal Area (SACA) Amendment/Environmental Assessment (EA) analyzes the impacts that would occur in Catron and Cibola Counties in West Central New Mexico as a result of three alternative levels of public lands acceptable for further consideration and inclusion in the Federal coal leasing process. The three alternatives considered are:

(1) No Action (no lands will be brought forward for further consideration for coal leasing), (2) Moderate Coal Production (34,271 acres containing approximately 111.16 million tons of Federal coal will be brought forward for consideration for coal leasing), and (3) Maximum Coal Production (121,521 acres containing approximately 216.48 million tons of Federal coal will be brought forward for consideration for coal leasing).

The three alternatives and their analyses are presented for public review in this Draft SACA Amendment/EA.

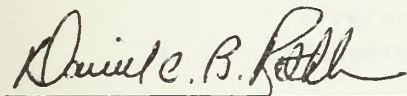
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Comments have been requested from: See Chapter 5

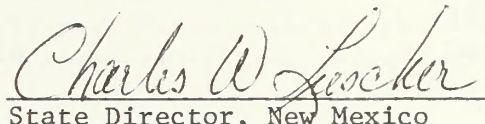
Dates of Comment/Review Period:

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Approved:



District Manager
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Las Cruces, New Mexico



State Director, New Mexico

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CHAPTER I INTRODUCTION

A. Purpose and Need for Amendment

The Divide Planning Area (DPA), Management Framework Plan (MFP), approved January 1983, M-2.1 decision states that public lands in the Salt Lake, Datil Mountains, Gallup-Zuni and Mt. Taylor coal fields will remain open for coal exploration and development. This decision does not identify specific areas within these coal fields as acceptable for further consideration for coal leasing, in accordance with 43 CFR 3400.

The purpose of the San Augustine Coal Area (SACA) amendment to the DPA/MFP is to further define those public lands within the previously listed coal fields which are acceptable for surface mining only and are to be included in the San Juan River Regional Coal Leasing process.

The need for leasing Federal coal reserves nationally was addressed in the "Final Environmental Impact Statement: Federal Coal Management Program" (USDI, BLM 1979), which presented Department of Energy production goals and considerations to meet national energy requirements. The need to address coal leasing within the DPA is the result of intensive coal industry interest. This has been brought about by New Mexico Bureau of Mines and Mineral Resources (NMBMMR) drilling programs, examination of the resources available on existing State leases within the Area by the coal industry, and by the proximity of the DPA to several coal-fired, electrical generating stations in northeastern Arizona. The need to amend the DPA/MFP is based in part upon this industry interest as well as the Bureau's needs to meet public demands in a timely and responsible manner. This responsibility includes an analysis of coal leasing and its effects on the human environment within the DPA.

B. Location

The 448,920 acres of the DPA known as the SACA are located in northern Catron and southern Cibola counties of west-central New Mexico, north of the town of Quemado, New Mexico and southeast of the town of Fence Lake, New Mexico (Map 1).

The surface ownership of the area is composed of: 176,660 public acres; 117,316 State acres; and 154,944 private acres. The subsurface (coal) estate ownership is: 293,931 acres of public, and 154,989 acres of nonpublic.

C. Planning Process

The planning process utilized to amend the DPA/MFP and initiate coal activity planning consists of:

1. Identification of Issues

The SACA amendment is being prepared as a single issue document. The issue to be addressed is a determination of which lands within the SACA are acceptable for inclusion in the Federal coal leasing process. The leasing of State-owned coal resources and collection of additional coal resource data by NMBMMR has generated interest in the surrounding public coal lands.

2. Development of Planning Criteria

The planning criteria utilized in the development of the SACA amendment to identify those lands within the DPA which are acceptable for further consideration in the Federal coal leasing process are defined in 43 CFR 3420.1-4. These criteria consist of four screens:

a. Determination of coal development potential. All lands considered as acceptable must have coal development potential based upon geologic and economic data.

b. The twenty unsuitability criteria contained in 43 CFR 3461.1. The results of application of the unsuitability criteria are contained in Appendix A.

c. Management consideration of other multiple-use resource values of national, regional or local importance or of a unique nature that are not included in the Federal unsuitability criteria.

d. The results of surface owner consultation.

3. Inventory Data and Information Collection

Resource specialists reviewed base data and initiated new surveys and inventories designed to identify and address the planning criteria. All inventory data collected has been added to the pertinent sections of the DPA/Unit Resource Analysis (URA BLM, unpublished).

4. Analysis of the Management Situation

The DPA/URA SACA addendums, the application of the unsuitability criteria document (Appendix A), the Cultural Resource Technical Report for the SACA, the Regional Social Assessment for the SACA, and coal resource data, together constitute the analysis of the management situation. The result of this analysis was utilized in the formulation of alternatives (Chapter II), and in further defining the boundaries of the SACA.

5. Formulation of Alternatives

The analysis of the management situation resulted in the formulation of four initial alternatives. Further analysis of these

initial alternatives in relation to the planning criteria indicated that only three of the four alternatives met the planning criteria; i.e., have coal development potential based upon geologic and economic data. The three alternatives analyzed in this document are: 1) No Action Alternative, 2) Moderate Coal Production Alternative and 3) the Maximum Coal Production Alternative.

6. Estimation of Effects of Alternatives

This step of the planning process describes the physical, biological, economic and social consequences of implementing each alternative. The results of this planning step are presented in Chapter IV of this document.

7. Selection of the Preferred Alternative

The Preferred Alternative presented in Chapter II was selected based upon the issue and the four planning criteria as developed in 1 and 2 above, coordination with other agencies, and evaluation of impacts associated with each alternative. Alternative number three, Maximum Production Alternative, is the Preferred Alternative.

8. Lands Identified as Acceptable for Further Consideration

This step in the planning process is the decision concerning identification and presentation of lands as acceptable for further consideration for coal leasing. This decision will be made following the evaluation of public comments on the Draft SACA amendment and publication of the Final SACA Amendment.

9. Coal Activity Planning

Following publication of the Final SACA Amendment, those lands identified as acceptable for further consideration for coal leasing will be further analyzed for inclusion in the Coal Activity Planning Process as described in 43 CFR 3420.3. The leasing process encompasses coal tract delineation, tract ranking by the Regional Coal Team (RCT) and inclusion in the Second Round San Juan River Regional Coal Environmental Impact Statement (EIS).

D. Planning Authority/Authority Annotation

Bureau of Land Management (BLM) planning authority and guidance for the consideration and leasing of Federal minerals is presented in the Federal Land Policy and Management Act of 1976, the Surface Mining Control and Reclamation Act of 1977, the Federal Coal Leasing Amendments Act of 1976, the Mineral Leasing Act of 1920 as amended, the Federal Regulations pertaining to coal management contained in 43 CFR 3400 and planning regulations 43 CFR 1600. Upon approval of the SACA Amendment, lands determined as being acceptable for further consideration for coal leasing will be further analyzed in the coal activity planning process to be completed by the Albuquerque District Office, BLM.

E. Conformance Statement

The DPA/MFP, a comprehensive plan completed in 1983, did not consider leasing Federal coal resources. In accordance with the planning regulations (43 CFR 1600 subpart 1610.5) the alternatives as discussed in this document, propose changes in the scope, terms and conditions contained in the DPA/MFP decision M-2.1 and will require an amendment. The planning decision will identify and present which lands, if any, are acceptable for further consideration in the coal leasing process in accordance with existing Federal coal leasing regulations (43 CFR 3400). The need to amend the DPA/MFP is in response to new data, intensified industry interest in Federal coal within the DPA, and a change in circumstances, in that several thousand acres of coal mineral estate owned by the State of New Mexico have been leased subsequent to preparation of the DPA/MFP.

CHAPTER II ALTERNATIVES

A. Alternatives Evaluated

1. No Action Alternative

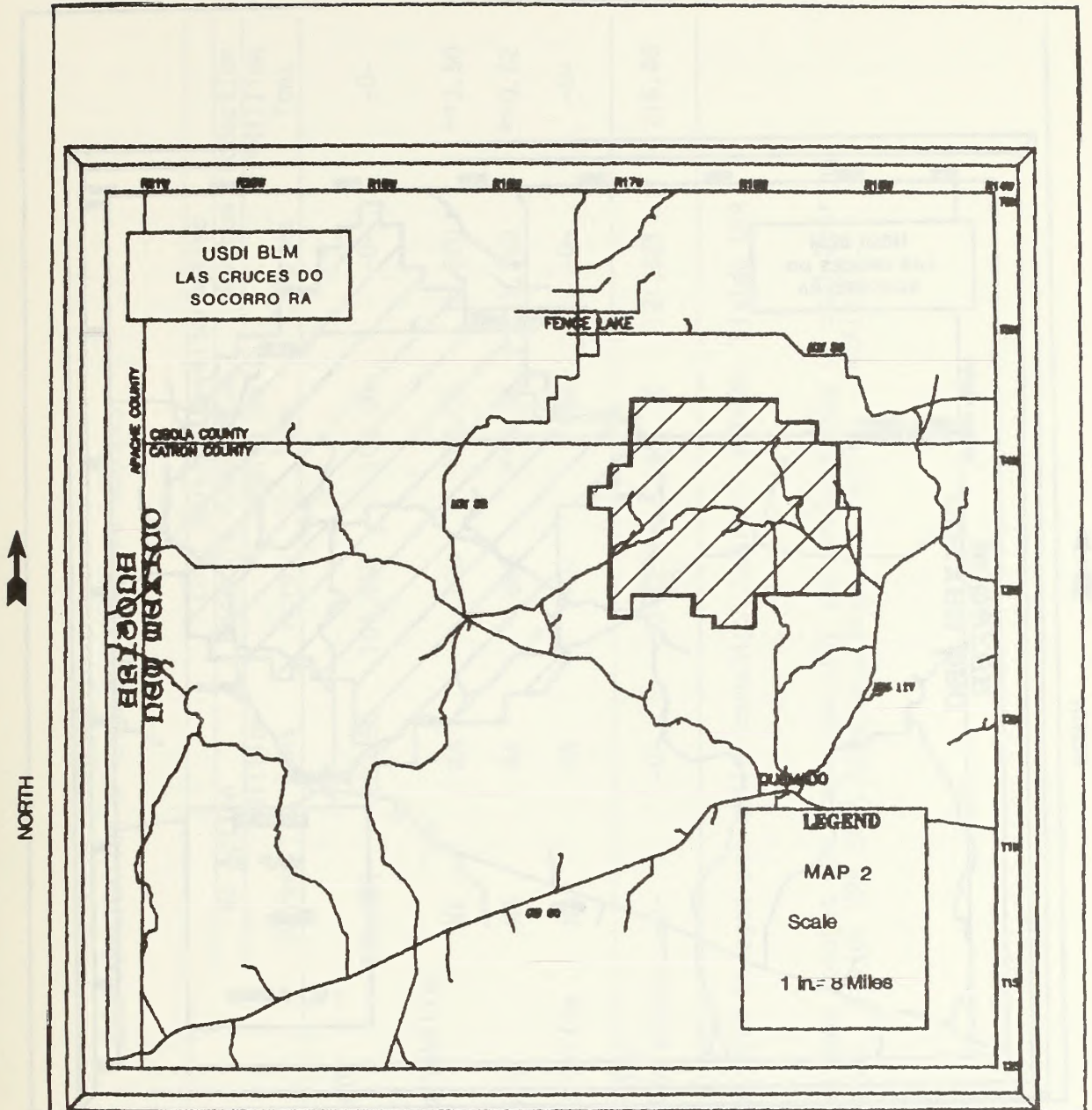
Under the No Action Alternative, no lands within the SACA would be brought forward for further consideration for regional coal leasing. No Federal coal within the SACA would be leased except by application of emergency leasing regulations as contained in 43 CFR 3425.1-4. The planning criteria in 43 CFR 3420.1-4 would still have to be applied in a site-specific land use analysis, and only those areas found acceptable would be eligible for emergency leasing. Emergency leasing would only occur to maintain production or avoid a bypass situation on a site specific case-by-case basis, and then only if the need for the coal resulted from circumstances either unforeseen or beyond the control of the applicant.

2. Moderate Coal Production Alternative (Map 2)

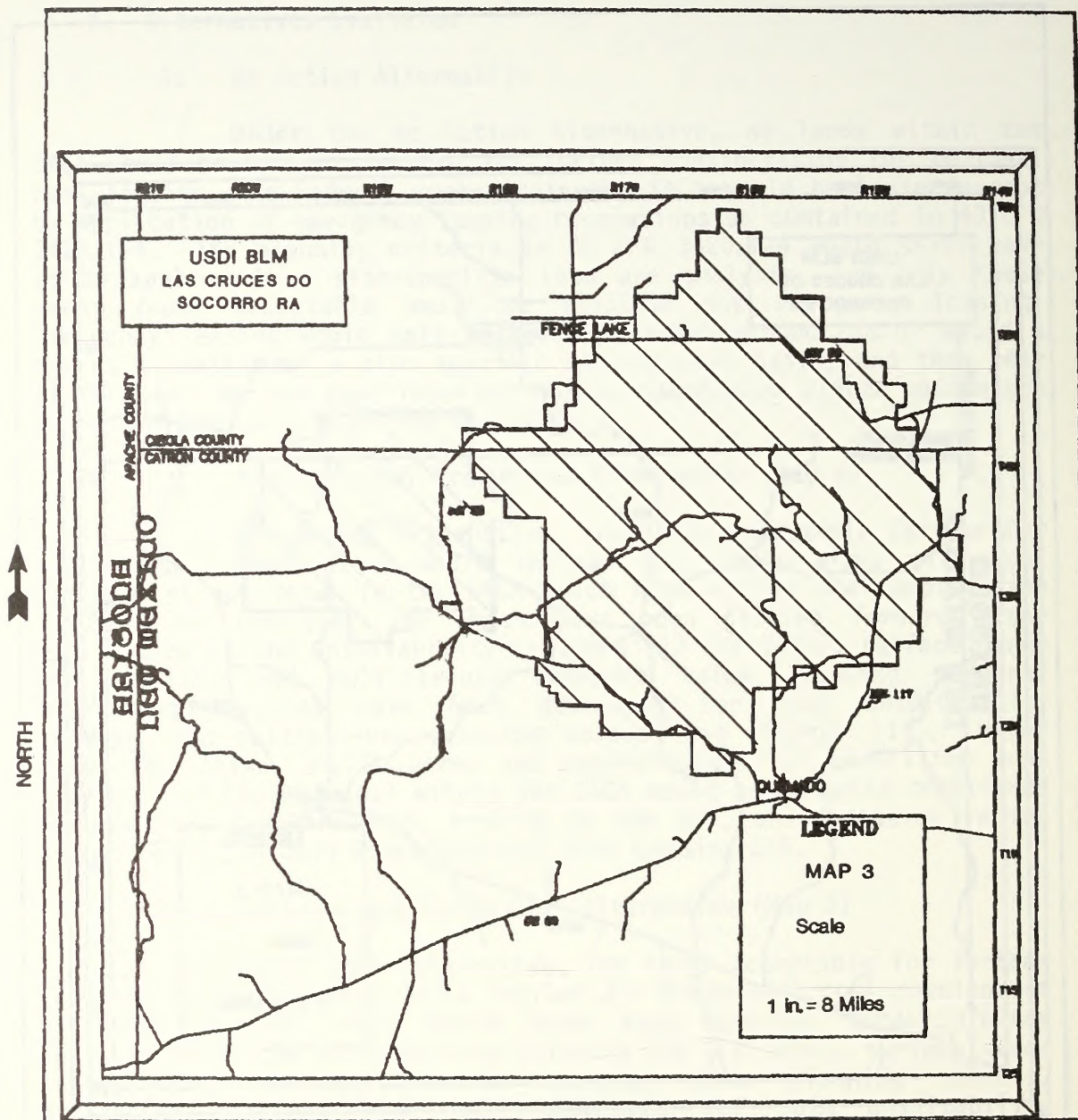
Under this alternative, the lands acceptable for further coal lease consideration would include only those areas with coal development potential in the SACA which have active coal exploration interest by industry, and which have been carried forward after application of the unsuitability criteria (43 CFR 3461), surface owner consultation, and multiple-use resource value planning screens. Mitigating measures have been developed for both unsuitability criteria and multiple-use resource values (see Chapter III). Under this alternative, 34,271 acres and approximately 111.16 million tons (Table I) of Federal coal within the SACA would be formally considered for coal tract delineation, ranking by the RCT, and inclusion in the second round San Juan River Regional Coal Leasing EIS.

3. Maximum Coal Production Alternative (Map 3)

Under this alternative, the lands acceptable for further coal lease consideration would include all areas with coal development potential in the SACA which have been carried forward after application of the unsuitability criteria (43 CFR 3461), surface owner consultation, and multiple-use resource value planning screens. Mitigating measures have been developed for both unsuitability criteria and multiple-use resource values (See Chapter III). Under this alternative, 121,521 acres and approximately 216.48 million tons (Table I) of Federal coal within the SACA would be formally considered for coal tract delineation, ranking by the RCT, and inclusion in the second round San Juan River Regional Coal Leasing EIS.



MODERATE COAL PRODUCTION ALTERNATIVE



MAXIMUM COAL PRODUCTION ALTERNATIVE
(PREFERRED ALTERNATIVE)

TABLE I
SACA APPLICATION OF LAND USE PLANNING SCREENS

Planning Screen	Coal Deleted by Alternative					
	No Action		Moderate Production		Maximum Production	
	Acres	*Million Tons	Acres	*Million Tons	Acres	*Million Tons
a. Coal with Development Potential	139,601	220.50	104,450	109.00	-0-	-0-
b. Application of Unsuitability Criteria	NA	NA	200	**0.04	16,520	**3.50
c. Multiple-Use Conflict	NA	NA	680	**0.30	1,560	**0.52
d. Surface Owner Consultation	NA	NA	-0-	-0-	-0-	-0-
Coal Acceptable for Further Regional Lease Consideration	-0-	-0-	34,271	111.16	121,521	216.48

* Coal estimates based upon tonages per whole township. Source: NMBMMR, Divide URA SACA Addendums.

** Coal estimates based upon tonages per whole township and geologic map of coal bearing formations. Source: Divide URA SACA Addendums Minerals Overlay - 42A(3)C2.

B. Alternatives Eliminated from Detailed Study

The following alternative was considered but was eliminated from detailed study.

Entire SACA Alternative

Under this alternative, all lands within the SACA which have been determined to be acceptable for surface mining after application of the unsuitability criteria (43 CFR 3461) and development of mitigating measures resolving conflicts identified by the application of the unsuitability criteria would be carried forward for consideration for coal leasing. Under this alternative, 204,160 acres of Federal mineral estate within the SACA would be formally considered for coal tract delineation, ranking by the RCT, and inclusion in the second round San Juan River Regional Coal Leasing Environmental Impact Statement.

This Alternative was eliminated from detailed study by management decision after 82,639 acres found acceptable under criteria b, c, and d (Chapter I) were dropped. The 82,639 acres did not meet criteria a, coal development potential.

C. Alternative Evaluations

1. No Action Alternative

a. Goal and Objective

The goal of this alternative would be to preserve the current resource uses and levels of use as they exist today. The objective of this alternative would be to bring no lands within the SACA forward for further regional coal leasing consideration.

b. Planning Screens

Not applicable.

c. Mitigating Measures

Under this alternative mitigation would be developed as the need arises.

d. Support Requirements

Not applicable.

e. Consistency Analysis

This alternative is not consistent with the actions of the State of New Mexico. Although there are no existing land-use plans, the State has leased several thousand acres within the SACA for coal development.

2. Moderate Coal Production Alternative

a. Goal and Objective

The moderate coal production alternative addressed by this amendment is to carry forward for further consideration for leasing only those federal coal estate lands covered by or included in an active coal exploration effort. This would provide 34,271 acres (Table II) of federal coal estate for tract delineation ranking and inclusion in the EIS process.

The objective of this alternative is that only those lands with the highest demonstrated private sector interest would be considered thus ensuring the Federal Government receives the highest return per acre for the resource.

TABLE II
SACA
*NONMITIGABLE UNSUITABLE/UNACCEPTABLE ACRES
BY ALTERNATIVE

Unsuitable or Unacceptable Acres		Criterion/Multi-Resource Consideration
Alternative 2	Alternative 3	
-0-	-0-	No. 4, WSA
680	1,560	Cultural Resources (CR)
120	480	No. 11, Eagle Nesting
-0-	1,040	No. 12, Eagle Roost
-0-	240	No. 13, Falcon Nest
-0-	280	**No. 12 and CR
80	1,040	**Nos. 11, 12, 15, High Interest State Species and CR
-0-	8,240	**Nos. 12, 15, 14, High Interest Federal Species and CR
-0-	5,200	**Nos. 11, 12, 14, and 15
880	18,080	Total Unsuitable/Unacceptable
35,151	139,601	Total Federal Coal by Alternative
34,271	121,521	Acceptable Acres by Alternative with Application of Mitigating Measures

* Other Unsuitability Criteria do not apply or are mitigatable (See Appendix A).

** Overlapping criteria.

b. Planning Screens

Planning screens presented in Chapter I as applied to this alternative resulted in no lands being found unacceptable due to surface owner consultation. The Federal unsuitability criteria and multiple-use resource value screens resulted in 880 acres and 0.34 million tons of Federal coal being unacceptable for further consideration (Tables I and II).

c. Mitigating Measures.

Federal coal estate can be considered acceptable for inclusion in the federal coal leasing process with specific mitigating measures or stipulations identified for each unsuitability criterion and multiple-use resource value. A total of 4,280 acres meeting the unsuitability criteria within the area covered by this alternative can be mitigated by stipulations in the event of future lease. The multiple-use resource value stipulations apply to all the identified lands (Table III) for the Moderate Coal Production Alternative.

STIPULATIONS FOR UNSUITABILITY CRITERIA MITIGATION

Unsuitability Criteria No. 2 and No. 3, Rights-of-Way (ROW), and Dwellings.

STIPULATION NO. 1, ROW: If it is impractical to relocate the ROW, mining will be prohibited within the ROW and within a 100-foot buffer zone from the outside of the ROW. Relocation approval of the holder of the ROW as well as amending the existing ROW would be necessary.

STIPULATION NO. 2, DWELLINGS: The coal lessee will consult with the owners of occupied dwellings and maintain or, with the owner's written consent, adjust the designated 300-foot buffer zone.

Unsuitability Criterion No. 14, High Federal Interest Species/Habitats

STIPULATION NO. 3, HABITAT AREAS: The coal lessee will consult with the BLM prior to any surface disturbing activities within the identified habitat area. The BLM will consult with the surface owner, the U.S. Fish and Wildlife Service (USFWS), and the New Mexico Department of Game and Fish (NMDGF)

Affected habitat will be replaced in kind or enhanced on a site-specific basis as determined by the surface owner, BLM, USFWS, and NMDGF.

Unsuitability Criterion No. 15, High State Interest Species/Habitats

STIPULATION NO. 4, PRAIRIE DOG COLONIES: Proposed activities in or adjacent to the identified areas will be preceded by a complete

TABLE III

LANDS ACCEPTABLE WITH UNSUITABILITY CRITERIA STIPULATIONS MODERATE COAL PRODUCTION ALTERNATIVE

T. 3 N., R. 15 W.,	Section 9, S1/2SE1/4 and SW1/4 and W1/2NW1/4. Section 10, E1/2 and S1/2SW1/4 and NW1/4. Section 11, A11 Section 13, A11 Section 14, A11 Section 15, A11 Section 18, NE1/4 and N1/2SE1/4 and N1/2SW1/4 and S1/2NW1/4 and NE1/4NW1/4. Section 19, SE1/4NW1/4 Section 21, E1/2 - Stipulation No. 4 applies to W1/2E1/2 and SE1/4NE1/4 and NE1/4SE1/4. Section 22, A11 Section 23, A11 - Stipulation No. 5 applies to SE1/4SE1/4 Section 24, A11 - Stipulation No. 5 applies to SW1/4SE1/4 and S1/2SW1/4 Section 25, A11 - Stipulation No. 5 applies to NW1/4NE1/4 and N1/2NW1/4 Section 26, E1/2 and E1/2SW1/4 and NW1/4SW1/4 and NW1/4. Stipulation No. 5 applies to NE1/4 and NW1/4SE1/4 and N1/2SW1/4 and SE1/4NW1/4. Section 27, E1/2 and E1/2SW1/4 and NW1/4SW1/4 and NW1/4. Stipulation No. 4 applies to SE1/4SW1/4, Stipulation No. 5 applies to S1/2SE1/4. Section 31, A11 - Stipulation No. 4 applies to NE1/4 and N1/2NW1/4. Section 35, A11
T. 4 N., R. 17 W.,	Section 3, A11 - Stipulation No. 5 applies to SW1/4SW1/4. Section 4, NW1/4. Section 9, N1/2NE1/4 and SW1/4SE1/4 and W1/2. Stipulation No. 5 applies to SW1/4SE1/4 and E1/2SE1/4 and SE1/4NW1/4. Section 10, NE1/4 and E1/2SE1/4 and NW1/4SE1/4 and SE1/4SW1/4 and NW1/4NW1/4. Stipulation No. 5 applies to S1/2NW1/4 and SE1/4SW1/4 and NW1/4NW1/4. Section 11, A11 Section 12, SE1/4 and SE1/4SW1/4. Section 13, E1/4 and N1/2NW1/4. Section 14, A11 Section 15, E1/2 and E1/2SW1/2 and W1/2SW1/4 and SW1/4NW1/4. Section 20, A11 Section 21, E1/2 and E1/2SW1/2 and NW1/4SW1/4 and W1/2NW1/4. Stipulation No. 5 applies to E1/4 and NW1/4NE1/4 and SW1/4SE1/4 and NE1/4NW1/4. Section 22, A11 - Stipulation No. 5 applies to NW1/4SW1/4 and SW1/4NW1/4. Section 23, A11 Section 24, W1/2NW1/4. Section 28, E1/2 and SW1/4 and SW1/4NW1/4. Stipulation No. 5 applies to E1/2. Section 29, A11 Section 30, A11 Section 33, N1/2 and SW1/4. Stipulation No. 5 applies to NE1/4.
T. 3 N., R. 15 W.,	Section 18, A11 - Stipulation No. 3 applies to E1/4 and SW1/4 Section 19, R. 16 W., Section 1, SW1/4SW1/4. Section 4, A11 Section 5, A11 Section 6, A11 Section 7, A11 Section 8, A11 Section 9, A11 Section 13, A11 Section 14, A11 - Stipulation No. 3 applies to SE1/4, NE1/4 and W1/2SE1/4 and SE1/4SW1/4. Section 15, A11 Section 17, A11 Section 18, E1/2 and E1/2SW1/4 and NW1/4SW1/4. Section 19, S1/2 and SW1/4NW1/4 and NE1/4NW1/4 and N1/2NE1/4 and SE1/4NE1/4. Section 20, A11 - Stipulation No. 3 applies to S1/2NW1/4. Section 29, W1/2NE1/4 and E1/2NW1/4 and NW1/4NW1/4. Section 30, N1/2
T. 3 N., R. 17 W.,	Section 1, A11 Section 3, E1/2 and SW1/4 Section 8, E1/2 and SW1/4 and W1/2NW1/4. Section 12, A11 - Stipulation No. 3 applies to S1/2SW1/4. Section 14, NE1/4 and S1/2SE1/4 and NW1/4SE1/4 and W1/2. Stipulation No. 5 applies to E1/2NE1/4. Section 15, N1/2 and W1/2SW1/4. Section 17, A11 Section 20, A11 Section 24, A11 - Stipulation No. 2 applies to SE1/4NW1/4; Stipulation Nos. 3 and 5 apply to NE1/4 and NE1/4SE1/4. Section 31, NE1/4 and W1/2. Section 4, E1/2 and SW1/4 and S1/2NW1/4. Section 6, W1/2NE1/4 and NE1/4NE1/4 and W1/2SE1/4 and E1/2NW1/2. Section 7, W1/2E1/2.

approved black-footed ferret inventory of the affected prairie dog colony. All inventory procedures and methods conducted by the lessee will be approved by BLM in consultation with the USFWS, and NMDGF.

Unsuitability Criterion No. 16, Special Floodplains

STIPULATION NO. 5, FLOODPLAINS: Prior to activities in or adjacent to the identified areas, the lessee will divert the identified water course around the anticipated activity area to the satisfaction of the surface management agency.

In areas where both Criteria 14 and 16 are overlapping, diversion designs and habitat replacement will occur at the same time.

MULTI-RESOURCE MANAGEMENT CONSIDERATION STIPULATIONS

(1) Water

Protection of the quality and quantity of surface and ground water will be required by both State and Federal regulations. Impacted water sources will be replaced.

(2) Topography, Soils, Watershed, Vegetation

Under existing laws and regulations, mined lands will be reclaimed. The objective of reclamation is to restore disturbed lands to a permanent, diverse vegetative cover of plant species suitable for livestock grazing, wildlife habitat, soil stabilization and watershed maintenance.

Measures such as replacement of stockpiled topsoil, mulching, the use of chemical soil binders, riprap techniques and other stabilizing methods and seeding will be used to accomplish reclamation.

Mine high-walls and other topographic disturbances will be reconstructed to approximate original contour to minimize erosion and enhance rehabilitation.

(3) Air Quality

Degradation of air quality in any lease area will be limited to acceptable levels as outlined in Federal and State ambient air quality standards.

(4) Cultural Resources

A 100-percent cultural resource inventory will be completed by the lessee. All inventory methods will be approved by BLM and the State Historic Preservation Officer (SHPO). Sites will have mitigation plans established.

d. Support Requirements

The lands identified by this alternative would be included in and addressed by a Federal coal leasing activity plan.

e. Consistency Analysis

Consideration of the described lands for inclusion in the coal leasing process would be consistent with the actions of the State of New Mexico. There are no known inconsistencies with existing land-use plans.

3. Maximum Coal Production Alternative

a. Goal and Objective

The goal of this alternative would be to carry forward for further consideration for coal leasing and inclusion in the coal leasing process the maximum known recoverable coal resource found to be acceptable.

This would provide approximately 121,521 acres (Table II) of federal coal estate for tract delineation, ranking and inclusion in the EIS process. The ultimate objective of this alternative would be that lands with known coal development potential would be considered in the competitive leasing process thus ensuring that industry demand can be met and at the same time providing the Federal Government a return commensurate with coal values.

b. Planning Screens

Planning screens presented in Chapter I as applied to this alternative resulted in no lands being found unacceptable due to surface owner consultation. The Federal unsuitability criteria and multiple-use resource value screens resulted in 18,080 acres and 4.02 million tons of Federal coal being unacceptable for further consideration (Tables I and II).

c. Mitigating Measures

The same mitigating measures and stipulations as described for Alternative 2 would apply to this alternative. The mitigating measures identified for unsuitability criterion mitigation would apply to approximately 8,880 acres of federal coal estate (indicated by stipulation number). The general management consideration stipulations or mitigating measures apply to the lands identified on Table IV.

d. Support Requirements

The lands identified by this alternative would be included in and addressed by a Federal coal leasing activity plan.

TABLE IV

LANDS ACCEPTABLE WITH UNSUITABILITY CRITERIA STIPULATIONS/
MAXIMUM COAL PRODUCTION ALTERNATIVE (PREFERRED ALTERNATIVE)

T. 2 N., R. 16 W.,	<p>Section 1, All - Stipulation No. 3 applies to W1/2NE1/4 and E1/2NW1/4.</p> <p>Section 3, N1/2 and W1/2SE1/4 and SE1/4SE1/4 and SW1/4.</p> <p>Section 4, All</p> <p>Section 5, E1/2.</p> <p>Section 8, E1/2.</p> <p>Section 17, E1/2. Stipulation No. 5 applies to SE1/4NE1/4 and NE1/4SE1/4.</p> <p>Section 19, S1/4 and NW1/4SW1/4 and S1/2NW1/4. Stipulation No. 5 applies to W1/2SW1/4 and S1/2NW1/4.</p> <p>Section 20, E1/2 and SW1/4 and S1/2NW1/4. Stipulation No. 5 applies to W1/2NE1/4 and N1/2SW1/4 and S1/2NW1/4.</p> <p>Section 30, W1/2NE1/4 and SE1/4 and W1/2. Stipulation No. 3 applies to SW1/4SE1/4.</p>	T. 2 N., R. 16 W.,	<p>Section 3, S1/2NE1/4 and N1/2SE1/4 and SE1/4SE1/4 and NW1/4.</p> <p>Section 4, NE1/4NE1/4 and W1/2SE1/4.</p> <p>Section 9, W1/2NE1/4.</p> <p>Section 10, NE1/4 and N1/2NW1/4. Stipulation No. 5 applies to NE1/4 and NE1/4NW1/4.</p> <p>Section 11, NW1/4. Stipulation No. 5 applies to SW1/4NW1/4.</p> <p>Section 17, E1/2.</p> <p>Section 24, S1/2NE1/4 and SE1/4 and W1/2. Stipulation No. 5 applies to E1/2SE1/4.</p> <p>Section 25, All</p>	<p>Section 1, E1/4 and SW1/4SE1/4 and S1/2SW1/4 and NW1/4SW1/4 and W1/2NW1/4 and NE1/4NW1/4. Stipulations Nos. 1 and 2 apply to N1/2NW1/4.</p> <p>Section 3, NE1/4 and NE1/4SE1/4. Stipulation No. 5 applies to E1/2NE1/4.</p> <p>Section 11, N1/2NE1/4 and SE1/4NE1/4.</p> <p>Section 12, E1/2NE1/4 and SW1/4NE1/4 and N1/2SE1/4 and SW1/4SE1/4 and N1/2NW1/4.</p>	<p>T. 2 N., R. 15 W.,</p> <p>Section 9, N1/2 and S1/2SE1/4 and NW1/4SE1/4 and SW1/4.</p> <p>Section 10, E1/2SE1/4 and SW1/4SE1/4 and SW1/4.</p> <p>Section 15, All</p> <p>Section 18, All</p> <p>Section 19, All</p>
T. 3 N., R. 16 W.,	<p>Section 20, N1/2 and N1/2SE1/4 and SW1/4SE1/4 and SW1/4.</p> <p>Stipulation No. 1, road located E1/2NE1/4 and NE1/4SE1/4. Stipulation No. 3 applies to E1/4SW1/4.</p> <p>Section 21, All. Stipulation No. 3 applies to NE1/4NW1/4.</p> <p>Section 22, All</p> <p>Section 27, N1/2NE1/4 and S1/2SE1/4 and NW1/4SW1/4 and W1/2NW1/4 and NE1/4NW1/4.</p> <p>Section 28, All. Stipulation No. 2, dwelling located SE1/4NW1/4.</p> <p>Section 29, W1/2NE1/4 and SE1/4NE1/4 and S1/2 and NW1/4.</p> <p>Stipulation No. 1, road located E1/2.</p> <p>Section 30, All</p> <p>Section 31, All</p> <p>Section 33, All</p>	T. 3 N., R. 16 W.,	<p>Section 1, SW1/4SW1/4</p> <p>Section 4, All</p> <p>Section 5, All</p> <p>Section 6, All</p> <p>Section 7, All</p> <p>Section 8, All</p> <p>Section 9, All</p> <p>Section 13, All</p> <p>Section 14, All. Stipulation No. 3 applies to SE1/4NE1/4 and W1/2SE1/4 and SE1/4SW1/4.</p> <p>Section 15, All</p> <p>Section 17, All</p> <p>Section 18, E1/2 and E1/2SW1/4 and NW1/4SW1/4.</p> <p>Section 19, S1/2 and SW1/4NW1/4 and NE1/4NW1/4 and N1/2NE1/4 and S1/2NE1/4.</p> <p>Section 20, All. Stipulation No. 3 applies to S1/2NW1/4.</p> <p>Section 21, N1/2SE1/4 and N1/2SW1/4 and NW1/4.</p> <p>Section 22, N1/2 and N1/2SE1/4 and W1/2SW1/4 and NE1/4SW1/4.</p> <p>Section 23, All. Stipulation No. 3 applies to NE1/4NW1/4.</p> <p>Section 24, All</p> <p>Section 25, All</p> <p>Section 26, All</p> <p>Section 27, S1/2NE1/4 and S1/2 and W1/2NW1/4 and SE1/4NW1/4.</p> <p>Section 29, W1/2E1/2 and S1/2SW1/4 and E1/2NW1/4 and NW1/4NW1/4.</p> <p>Section 30, All</p> <p>Section 31, N1/2NE1/4 and NE1/4NW1/4.</p> <p>Section 33, E1/2 and SW1/4 and S1/2NW1/4.</p> <p>Section 34, All. Stipulation No. 3 applies to SE1/4SE1/4.</p>	<p>Section 15, All</p> <p>Section 17, All</p> <p>Section 18, E1/2 and E1/2SW1/4 and NW1/4SW1/4.</p> <p>Section 19, S1/2 and SW1/4NW1/4 and NE1/4NW1/4 and N1/2NE1/4 and S1/2NE1/4.</p> <p>Section 20, All. Stipulation No. 3 applies to S1/2NW1/4.</p> <p>Section 21, N1/2SE1/4 and N1/2SW1/4 and NW1/4.</p> <p>Section 22, N1/2 and N1/2SE1/4 and W1/2SW1/4 and NE1/4SW1/4.</p> <p>Section 23, All. Stipulation No. 3 applies to NE1/4NW1/4.</p> <p>Section 24, All</p> <p>Section 25, All</p> <p>Section 26, All</p> <p>Section 27, S1/2NE1/4 and S1/2 and W1/2NW1/4 and SE1/4NW1/4.</p> <p>Section 29, W1/2E1/2 and S1/2SW1/4 and E1/2NW1/4 and NW1/4NW1/4.</p> <p>Section 30, All</p> <p>Section 31, N1/2NE1/4 and NE1/4NW1/4.</p> <p>Section 33, E1/2 and SW1/4 and S1/2NW1/4.</p> <p>Section 34, All. Stipulation No. 3 applies to SE1/4SE1/4.</p>	<p>Section 15, All</p> <p>Section 17, All</p> <p>Section 18, E1/2 and E1/2SW1/4 and NW1/4SW1/4.</p> <p>Section 19, S1/2 and SW1/4NW1/4 and NE1/4NW1/4 and N1/2NE1/4 and S1/2NE1/4.</p> <p>Section 20, All. Stipulation No. 3 applies to S1/2NW1/4.</p> <p>Section 21, N1/2SE1/4 and N1/2SW1/4 and NW1/4.</p> <p>Section 22, N1/2 and N1/2SE1/4 and W1/2SW1/4 and NE1/4SW1/4.</p> <p>Section 23, All. Stipulation No. 3 applies to NE1/4NW1/4.</p> <p>Section 24, All</p> <p>Section 25, All</p> <p>Section 26, All</p> <p>Section 27, S1/2NE1/4 and S1/2 and W1/2NW1/4 and SE1/4NW1/4.</p> <p>Section 29, W1/2E1/2 and S1/2SW1/4 and E1/2NW1/4 and NW1/4NW1/4.</p> <p>Section 30, All</p> <p>Section 31, N1/2NE1/4 and NE1/4NW1/4.</p> <p>Section 33, E1/2 and SW1/4 and S1/2NW1/4.</p> <p>Section 34, All. Stipulation No. 3 applies to SE1/4SE1/4.</p>

LANDS ACCEPTABLE WITH UNSUITABILITY CRITERIA STIPULATIONS/
MAXIMUM COAL PRODUCTION ALTERNATIVE (PREFERRED ALTERNATIVE)17

TABLE IV (continued)

LANDS ACCEPTABLE WITH UNSUITABILITY CRITERIA STIPULATIONS/
MAXIMUM COAL PRODUCTION ALTERNATIVE (PREFERRED ALTERNATIVE)

T. 4 N., R. 17 W.,	Section 23, S1/2N1/2 and S1/2.
	Section 24, All
	Section 25, All
	Section 26, All
	Section 27, E1/2 and E1/2W1/2 and W1/2SW1/4 and NW1/4NW1/4.
	Section 28, NE1/4NE1/4 and S1/2 and SW1/4NW1/4. Stipulation No. 3 applies to SE1/4SW1/4.
	Section 29, E1/2NE1/4 and SW1/4NE1/4 and S1/2 and SE1/4NW1/4.
	Section 35, All
T. 5 N., R. 15 W.,	
	Section 20, All. Stipulation Nos. 3 and 5 apply to N1/2 and SW1/4.
	Section 28, All. Stipulation No. 3 applies to SE1/4SW1/4.
	Section 29, All
	Section 30, All. Stipulation No. 1, road located W1/2. Stipulation No. 3 applies to SE1/4NE1/4 and NE1/4SE1/4 and SW1/4SE1/4 and NE1/4SW1/4.
	Section 31, All
	Section 33, All
	Section 34, E1/2.
T. 5 N., R. 16 W.,	
	Section 4, All. Stipulation No. 5 applies to SE1/4SE1/4.
	Section 5, All. Stipulation No. 3 applies to NE1/4SE1/4.
	Section 6, All. Stipulation No. 2, dwelling located NW1/4SE1/4. Stipulation No. 5 applies to E1/2NE1/4.
	Section 7, All
	Section 8, All. Stipulation Nos. 3 and 5 apply to S1/2NE1/4 and NW1/4NE1/4 and NW1/4SE1/4.
	Section 9, All. Stipulation No. 5 applies to NE1/4NE1/4.
	Section 10, All. Stipulation No. 5 applies to NW1/4NW1/4.
	Section 12, All. Stipulation Nos. 3 and 5 apply to SE1/4NE1/4 and W1/2SW1/4 and SE1/4SW1/4.
	Section 17, All. Stipulation No. 2, dwelling located NE1/4SW1/4.
	Section 18, All
	Section 19, All. Stipulation No. 2, dwelling located NW1/4SW1/4.
	Section 20, All. Stipulation No. 1, road located N1/2N1/2.
	Section 21, All. Stipulation No. 1, road located N1/2N1/2.
	Section 22, All. Stipulation No. 1, road located N1/2N1/2. dwelling located SW1/4NW1/4.
	Section 24, All. Stipulation No. 3 applies to N1/2NE1/4 and SE1/4 and NE1/4NW1/4.
	Section 25, All. Stipulation No. 1, road located N1/2N1/2.
	Section 27, E1/2SW1/4 and SW1/4SW1/4 and SE1/4NW1/4.
	Section 28, All
	Section 29, All
	Section 30, All. Stipulation No. 3 applies to NW1/4NE1/4 and NE1/4NW1/4.
T. 4 N., R. 17 W.,	
	Section 3, All. Stipulation No. 5 applies to SW1/4SW1/4.
	Section 4, NW1/4.
	Section 5, E1/2NE1/4 and SW1/4NE1/4 and SE1/4 and NE1/4SW1/4 and SE1/4NW1/4. Stipulation No. 3 applies to SW1/4SE1/4.
	Section 9, N1/2NE1/4 and SW1/4NE1/4 and NW1/4SE1/4 and W1/2.
	Section 10, NE1/4, and N1/2SE1/4 and SE1/4SE1/4 and NW1/4NW1/4. Stipulation No. 5 applies to S1/2NW1/4 and SE1/4SW1/4 and NW1/4NW1/4.
	Section 11, All
	Section 12, SE1/4 and SE1/4SW1/4.
	Section 13, E1/4 and W1/2NW1/4.
	Section 14, All
	Section 15, E1/2 and E1/2W1/2 and W1/2SW1/4 and SW1/4NW1/4.
	Section 17, All
	Section 18, N1/2 and S1/2SE1/4 and SE1/4SW1/4.
	Section 19, E1/2NE1/4 and SW1/4NE1/4 and S1/2 and S1/2NW1/4.
	Section 20, All
	Section 21, E1/2 and E1/2W1/2 and NW1/4SW1/4 and W1/2NW1/4.
	Stipulation No. 5 applies to E1/4 and NW1/4NE1/4 and NW1/4SE1/4 and NE1/4NW1/4.
	Section 22, All. Stipulation No. 5 applies to NW1/4SW1/4 and SW1/4NW1/4.
	Section 25, All
	Section 26, W1/2NW1/4.
	Section 28, E1/2 and SW1/4 and SW1/4NW1/4. Stipulation No. 5 applies to E1/2.
	Section 29, All
	Section 30, All
	Section 31, S1/2.
	Section 33, N1/2 and SW1/4. Stipulation No. 5 applies to NE1/4.
T. 4 N., R. 18 W.,	
	Section 7, N1/2 and SW1/4.
	Section 9, All. Stipulation No. 5 applies to SE1/4NW1/4.
	Section 10, All. Stipulation No. 5 applies to N1/2NE1/4 and SE1/4NE1/4 and SW1/4 and E1/2W1/2.
	Section 15, SW1/4.
	Section 17, NE1/4 and N1/2SE1/4.
	Section 20, All
	Section 21, N1/2 and N1/2SE1/2 and SE1/4SE1/4.
	Section 22, All

TABLE IV (continued)

LANDS ACCEPTABLE WITH UNSUITABILITY CRITERIA STIPULATIONS/
MAXIMUM COAL PRODUCTION ALTERNATIVE (PREFERRED ALTERNATIVE)

Section 31, All; Section 35, S1/2 and NW1/4.	
T. 5 N., R. 17 W.,	
Section 1, N1/2.	Stipulation Nos. 3 and 5 apply to N1/2SE1/4 and
Section 10, All.	E1/4SW1/4 and NW1/4SW1/4 and SE1/4NW1/4 and NW1/4NW1/4.
Section 11, All.	Stipulation No. 2, dwelling located SW1/4NE1/4.
Section 12, All	Stipulation No. 3 applies to N1/2SW1/4.
Section 13, All.	Stipulation No. 2, dwelling (2) located SW1/4SW1/4 and SE1/4NW1/4. Stipulation No. 3 applies to SW1/4NE1/4 and S1/2NW1/4.
Section 14, All	
Section 15, All.	Stipulation No. 2, dwelling located NE1/4SW1/4.
Section 20, All.	Stipulation No. 1, road located N1/2N1/2
Section 21, All.	Stipulation No. 1, road located N1/2N1/2; dwelling located SW1/4NE1/4.
Section 22, All.	Stipulation No. 1, road located N1/2N1/2.
	Stipulation No. 3 applies to W1/2NE1/4 and SE1/4SE1/4 and NW1/4.
Section 23, All.	Stipulation No. 1, road located N1/2N1/2.
Section 24, All.	Stipulation No. 1, road located N1/2N1/2.
Section 25, E1/2.	
Section 26, N1/2 and N1/2S1/2.	
Section 27, N1/2 and N1/2S1/2 and SW1/4SE1/4 and S1/2SW1/4.	
Section 28, All.	Stipulation Nos. 3 and 5 apply to W1/2NE1/4 and NW1/4.
Section 29, All.	Stipulation No. 2, dwelling located NW1/4SW1/4.
	Stipulations Nos. 3 and 5 apply to NE1/4.
Section 30, All	
Section 33, N1/2 and W1/2SE1/4 and SW1/4.	
Section 34, W1/2NE1/4 and NW1/4.	
Section 35, E1/2N1/2 and NW1/4SW1/4 and SW1/4NW1/4.	
T. 6 N., R. 16 W.,	
Section 20, All	
Section 28, All.	Stipulation No. 3 applies to NW1/4SE1/4 and NE1/4SW1/4.
Section 30, E1/2 and NW1/4.	Stipulation No. 3 applies to S1/2NE1/4.
Section 31, E1/2 and SW1/4.	Stipulation No. 3 applies E1/2SE1/4 and NW1/4SE1/4 and NE1/4SW1/4.
Section 33, All.	
Section 34, All.	Stipulation No. 3 applies to SE1/4NE1/4 and SW1/4SW1/4 and N1/2NW1/4.

e. Consistency Analysis

Consideration of the described lands for inclusion in the coal leasing process would be consistent with the actions of the State of New Mexico. There are no known inconsistencies with existing land use plans.

CHAPTER III AFFECTED ENVIRONMENT

This chapter briefly describes the environment of the SACA. Detailed resource information concerning the area is contained in the DPA/URA, the SACA addendums to the DPA/URA, the Technical Report of the Cultural Resources of the SACA, the Regional Social Assessments of the SACA and the West Socorro Rangeland Management Program EIS.

The SACA is entirely within the southwestern mountain climatic region. The area averages 80 to 100 frost free days per year with an average annual precipitation from 9 to 15 inches.

Air quality within the SACA is generally good, with only occasional vehicular generated dust and intermittent wind generated dust as particulates.

The SACA lies along the interface of the Colorado Plateau and the Datil-Mogollon Volcanic Field. This region is generally characterized by mesas developed in Cretaceous sandstones and shales, volcanic necks and flows of Tertiary to Recent basalts and andesites, and broad valleys with ephemeral streams and associated Quaternary alluvium. Surface waters are relatively scarce throughout the majority of the year. The major source of groundwater in the coal area is in the Dakota Sandstone. Groundwater quality is generally good; however, several water samples that were analyzed had constituents that exceeded the recommended levels for drinking water. The hydrology of Zuni Salt Lake is not fully understood. The U.S. Geological Survey (USGS) is presently doing some hydrologic studies of the Zuni Salt Lake area. The elevation of the area ranges from 6,500 to 7,700 feet above mean sea level.

Stratigraphic units exposed within the SACA range in age from Triassic to Quaternary. From oldest to youngest the formations include: the Triassic Chinle Formation consisting of continental redbeds with gray shale and sandstone; the Cretaceous Dakota Sandstone; the Cretaceous Mancos Shale; the Cretaceous Atarque Sandstone; the Cretaceous Moreno Hill Formation which is the coal-bearing unit of interest in the SACA; the Tertiary Baca and Fence Lake Formations consisting of fluvial clastics and coarse boulder-conglomerates; the Datil Formation consisting of volcanoclastic rocks; a Tertiary volcanic neck (Cerro Prieto) composed of basalt; Quaternary basalt flows; and Quaternary alluvial deposits.

The coal zones in the Salt lake coal field are located in the Moreno Hill Formation which is divided into three members: a lower sandstone-mudstone unit, a middle sandstone, and an upper mudstone-claystone unit. The total thickness of the Moreno Hill is about 860 feet. The Moreno Hill generally shows a dip of 2-6 degrees to the southeast and gets progressively thinner toward the west.

There are four coal zones in the Moreno Hill Formation: the Antelope, Cerro Prieto, and Rabbit zones occur in the lower Moreno Hill and the Twilight zone occurs in the Upper Moreno Hill. The

lowest zone, the Antelope, is located within 50 feet above the top of the Atarque Sandstone. Average total coal thickness in this zone is 2.7 feet.

The Cerro Prieto zone is located about 150 feet above the Antelope zone. There are four coal seams in this zone ranging from 2-10 feet in thickness. There is one major coal seam that varies from 6-10 feet and is recognizable by having two thin kaolinitic partings. The average total coal thickness in the Cerro Prieto zone is 6.2 feet.

Located about 90 feet above the Cerro Prieto zone and 60 feet below the base of the Moreno Hill middle sand is the Rabbit zone. This zone has four seams, the thickest of which has a single kaolinitic parting which distinguishes the Rabbit zone from the Cerro Prieto. The average total thickness is 5.1 feet while the average seam thickness is 2.7 feet.

The fourth and highest coal zone is the Twilight zone. It is located in the upper Moreno Hill about 50 feet above the Moreno Hill middle sand. This zone consists of 1-3 seams averaging 1.9 feet in thickness while the average total coal thickness is 3.3 feet.

The coal zones in the Moreno Hill Formation are of high volatile C bituminous rank. The coals are relatively low in sulfur (averaging about 0.8 percent), but have a high ash content of about 17 percent. The average heating value of the coals is 9,381 BTU/lb which is equivalent to a moist, mineral-matter-free value of 11,229 BTU/lb.*

The NMBMMR and the USGS are currently working on a cooperative project to map the coal-bearing Cretaceous rocks and evaluate the coal resources in the Salt Lake coal field.

Within the SACA, most of the drilling done so far by the joint USGS/NMBMMR coal project has occurred in a four township area southeast of Fence Lake in T. 4 and 5 N., R. 16 and 17 W. Analysis of data from these coal studies indicates that the best coal mining potential in the SACA occurs in this area. There is current interest in using Salt Lake coal at the Coronado generating plant in St. Johns, Arizona.

The BLM has issued two coal exploration licenses within the SACA: one to Salt River Project, Box 1980, Phoenix, AZ. 85001, and the other to Dorado Energy Group, Inc., 8957 East Monterosa, Scottsdale, AZ. 85251. These two companies are conducting intensive drilling programs with most of the holes being drilled in T. 3, 4, and 5 N., and R. 16 and 17 W.

In addition to the coal resource, mineral potential of the SACA includes geothermal associated with volcanic activity and sandstone type uranium deposits. Mineral materials within the SACA include cinders, pumice, clay, stone, basalt, and sand and gravel.

*This section was taken in part from Roybal and Campbell (1981) and Campbell (1984).

Vegetation forms a continuum from semi-arid continental pinyon/juniper parklands to relatively lush grasslands of the floodplains.

Wildlife habitat within the SACA is in generally good condition with topographic variation and plant diversity providing for relatively high populations of birds, small mammals and reptiles.

Pronghorn antelope and mule deer are the major big-game species which occur within the area. Antelope and mule deer use is year-round within the area; mule deer winter range has been identified within the SACA.

Special habitat features identified within the SACA include cliffs and intermittent wetlands.

The raptor species utilizing the area include nesting and wintering golden eagles, wintering bald eagles and nesting prairie falcons. Important raptor roosting and nesting habitat has been identified within the area.

Observations of peregrine falcons within the SACA have been made in late summer and fall. No peregrine falcon nesting or winter use is known to occur in the area.

Threatened or Endangered Species

There is a potential for five Federally and State listed endangered animal species to occur within the SACA. These species are listed in Table V with the classification and recorded occurrences.

No mammals, reptiles, or amphibians listed as Threatened and Endangered by the U.S. FWS (1980) or as endangered by the New Mexico State Game Commission (1983) were observed in the SACA. Potential black-footed ferret habitat occurs as prairie dog colonies within the SACA. Two bird species listed as endangered by the USFWS and the New Mexico State Game Commission, were observed within the SACA. The endangered species, their habitat, and occurrence are discussed individually in the DPA/URA, MFP and the West Socorro Rangeland Management Program EIS.

TABLE V
ENDANGERED SPECIES OF THE SAN AUGUSTINE COAL AREA

Species Name	Status	Occurrence
Black-Footed Ferret <u>Mustela nigripes</u>	FE&SE-I	Unconfirmed
Bald Eagle <u>Haliaeetus leucocephalus</u>	FE&SE-II	Confirmed
American Peregrine Falcon <u>Falco peregrinus anatum</u>	FE&SE-I	Confirmed
Baird's Sparrow <u>Ammodramus Bairdii</u>	SE-II	Unconfirmed
Sonora Mountain Kingsnake <u>Lampropeltis pyromelana</u> <u>pyromelana</u>	SE-II	Unconfirmed

FE-Federal Endangered

SE-I-State Endangered Group No. I

SE-II-State Endangered Group No. II

Source: Federal Register. Thur., July 4, 1977. Part V: State Game Commission Regulation No. 624 Listing of Endangered Species and Subspecies of NM. 1983.

Human occupation of the area began at least 12,000 years ago. Few Paleo-Indian and Archaic period sites have been identified in the locality. Evidence of later, more sedentary populations is much more prevalent. Numerous pit houses and masonry pueblos have been identified within the area. Europeans began utilizing this area for raising cattle and sheep in the 1800's. Although many technologic and customary changes have occurred since, grazing is still the predominant land use.

With the exception of the more numerous volcanic features, the terrain within the area is typical of the Colorado Plateau. No unique visual resources, or Areas of Critical Environmental Concern exist within the area.

Two wilderness study areas (WSAs), Eagle Peak and Mesita Blanca are located within the SACA.

Outdoor recreational activities including hunting and camping are limited within the SACA, the majority of the lands being private surface with limited access.

CHAPTER IV ENVIRONMENTAL CONSEQUENCES

A. No Action Alternative

Under the No Action Alternative there would be no land use conflict or impacts. Should the companies holding State coal leases within the area initiate operations, an emergency or bypass coal leasing situation could occur. In the event that an emergency leasing application is made, a site specific land-use analysis, environmental assessment or an EIS would be prepared to address the acceptability and impact of emergency leasing and mining of the Federal coal estate.

B. Moderate Coal Production Alternative

Under this alternative 34,271 acres of Federal coal estate would be included in the Federal coal activity planning process. There would be no land use conflict or impact from including these lands in the coal activity planning process. Should the coal activity planning process ultimately lead to leasing the Federal coal estate and mining, the following impacts would be addressed in the Second Round San Juan River Regional Coal EIS:

1. Degradation of air quality due to an increase in vehicular traffic and mining operations.
2. Alteration of topographic relief.
3. Disturbance to soil strata and soil rehabilitation.
4. Impacts to surface and ground water quantity and quality, increasing sediment yields and lowering of ground water tables.
5. Vegetative removal or alteration impacts to livestock and wildlife habitat.
6. Increased human disturbance to wildlife species.
7. Cultural resource impacts.
8. Impacts to the visual resource.
9. Impacts to the wilderness study areas.
10. Increased demand on recreational opportunities.
11. Socio-economic impacts.

C. Maximum Coal Production Alternative.

The Maximum Coal Production Alternative would include 121,521 acres of Federal coal estate in the Federal coal activity planning process. There would be no land use conflict or impact from including

these lands in the coal activity planning process. In the event that the coal activity planning process ultimately leads to consideration of this area for coal leasing and mining, the area would be included in the Second Round San Juan River Regional Coal EIS. The Regional Coal EIS will address the potential impacts of coal leasing and mining. The potential impacts associated with this alternative would be the same as described for the Moderate Coal Production Alternative increased in magnitude by the larger area covered.

CHAPTER V CONSULTATION AND COORDINATION

During the development of the SACA amendment to the DPA/MFP as described in Chapter 1, the BLM Planning System was presented to the public at meetings, in news releases, and in various publications. Also, many individual contacts were made via telephone, letters, and informal meetings. At the same time, the public was given the opportunity to contribute their knowledge, ideas and proposals.

Council on Environmental Quality (CEQ) regulations for implementing the national Environmental Policy Act (NEPA) require "an early and open process for determining the scope of issues to be addressed for identifying the significant issues related to a proposed action". To ensure implementation of these regulations, the BLM Socorro Resource Area has continued coordination with various Federal, State and local agencies and interested persons to gather information pertaining to the SACA.

Meetings concerning the SACA were held with Federal and State agencies February 15 and 17, 1983 in Albuquerque and Santa Fe, New Mexico. Public meetings were held February 23 and 24, 1983 in Grants and Quemado, New Mexico. Numerous meetings have been held with local governments and Indian tribal leaders.

Surface Owner Consultation

Consultation with surface owners has been completed within the SACA. Potential qualified surface owners have been informed of the consent and refusal to consent procedures as described in 43 CFR 3400.

A survey of the 128 surface landowners within the SACA was conducted to ascertain their opinions concerning coal development within the area. Generally, 49 percent of the surface owners favor coal development, 17 percent do not favor coal development, and 34 percent reflected no opinion or were undecided or had no comment. Under all alternatives negative surface owner views (Analysis Surface Owner Consultations) were not considered significant enough to delete any area from further coal leasing consideration for surface mining, based on the requirements in 43 CFR 3420.1-4 (3)4. No land can be leased unless qualified surface owner consent is obtained.

Agencies and Groups Consulted

The SACA project staff consulted/and or received comments from the following agencies and organizations during the preparation of this document. For a listing of contact dates and locations contact the Socorro Resource Area, BLM, Socorro, NM.

Federal Agencies

Department of Agriculture
Soil Conservation Service
Forest Service

Department of the Army
Corps of Engineers

Department of Energy

Department of the Interior
Bureau of Indian Affairs
Bureau of Mines
Bureau of Reclamation
Minerals Management Service
National Park Service
Office of Surface Mining, Reclamation
and Enforcement
Fish and Wildlife Service
Geological Survey
Field Solicitor
Regional Environmental Officer

Department of Labor

Department of Transportation

Environmental Protection Agency

New Mexico State Agencies

Governor's Office
Department of Agriculture
Department of Commerce and Industry
Department of Finance and Administration
Planning Division
Historic Preservation Bureau

Department of Employment Security
Department of Energy and Minerals
Department of Health and Environment
State Highway Department
Department of Natural Resources
State Forestry Division
State Parks and Recreation Division
State Soil and Water Conservation Division
State Water Resources Division
State Heritage Program
Department of Game and Fish

Department of Taxation and Revenue
Public Lands Commissioner
State Bureau of Mines and Mineral Resources

Tribal Government

Ramah Navajo Tribe
Zuni Tribal Council

Local Governments and Organizations

County Commissions

Catron County

Cibola County

Middle Rio Grande Council of Governments

HUB RC&D Area Council

Individuals

Many individuals, including livestock operators, coal industry representatives, and interested publics were contacted or attended the public meeting and presented their views.

List of Preparers
San Augustine Coal Area - MFP Amendment Team

<u>Individual</u>	<u>Expertise</u>	<u>Office</u>	<u>Assignment-Responsibility</u>
Brian Mills	Wildlife Mgmt. Biologist/Team Ldr./ Program Coordinator	SRA	Wildlife Habitat/Overall Amendment effort, Draft preparation.
Powell King	Program Coord. (Mining Engr.)	SRA	Mining Engineer - 43 CFR 3400 Expertise
Bill McNally	Regional Econo.	SRA	Economics/Sociology Planning/Environmental Expertise
Jane Farmer	Writer/Editor	SRA	Document Management and Production ADP Assistance
Carol Marchio	Soils Scientist	SRA	Soils/Watershed
Laird McIntosh	Botanist	SRA	Vegetation/Range Management
Bob Prickett	Outdoor Rec. Planner	SRA	Recreation/Wilderness/ VRM
John Hertz	Realty Specialist	SRA	Realty/Lands/Surface Owner Consultation
Barbara Gutierrez	Supervisory Clk.	Admin.	Office Manager
Klara Kelley	Archaeology	SRA	Ethnographics
Eileen Camilli	Archaeology	SRA	Cultural Resources
Dabney Ford	Archaeology	SRA	Cultural Resources
Bill Kight	Archaeology	SRA	Cultural Resources
John Stein	Archaeology	SRA	Cultural Resources
Signa Larralde	Archaeology	SRA	Cultural Resources
Allen Rourx	Archaeology	SRA	Cultural Resources
Joel Farrell	Natural Res. Spec.	SRA	Lands/Surface Consultation
Tom Custer	Geologist	LCDO	Minerals
Chris Anderson	Air Quality Spec.	NMSO	Air Quality

Application of Gravitational Criteria
142-077-340
San Antonio Gas Area
June 01, 1981

APPENDIX A

INTRODUCTION

The twenty unsuitability criteria contained in 43 CFR 3461.1 were used to assess the unsuitability for mining of the San Augustine Coal Area (SACA). The intent of the unsuitability criteria application is to identify the areas within the SACA which could not be properly protected or maintained if the area were leased for coal mining.

After initial survey of the entire 448,920 acres of the SACA, unsuitable areas, meeting specific criteria, were identified and included in the Divide Unit Resource Analysis Addendums. Following the identification and formulation of alternatives to be addressed by the SACA DPA/MFP amendment, the areas of high potential for coal recovery, Alternative Two and Three (Map 1) were reexamined for areas meeting unsuitability criteria which can be mitigated or on which exceptions or exemptions could apply.

SUMMARY

The unsuitability criteria which affect lands within the SACA are displayed on the unsuitability criterion overlays 1 through 5 which are available for public review at the Socorro Resource Area Office, Socorro, New Mexico.

At this time, the SACA does not contain lands meeting unsuitability Criteria No. 1, Federal Land Systems; No. 5, Scenic Class One Lands; No. 6, Scientific Study Areas; No. 8, Natural Areas; No. 9, Federal Listed Species/Habitats; No. 10, State Listed Species/Habitats; No. 17, Municipal Watersheds; No. 18, National Resource Waters; No. 19, Alluvial Valley Floors; and No. 20, State Criteria.

Of the remaining criteria, mitigating measures have been developed which would allow lands identified as meeting Criteria No. 2, Rights-of-Way; No. 3, Roads and Dwellings; No. 14, High Interest Federal Species/Habitats; and No. 16, 100-Year Floodplains to be considered acceptable for coal leasing. Those criteria which cannot be mitigated are presented in Table A-1 as Unsuitable Areas.

Table A-1
SACA
Unsuitable/Acceptable Acres
by Alternative

Unsuitable Acres		Criterion/Multi-Resource Consideration
Alternative 2	Alternative 3	
-0-	-0-	No. 4, WSA
680	1,560	Cultural Resources (CR)*
120	480	No. 11, Eagle Nesting
-0-	1,040	No. 12, Eagle Roost
-0-	240	No. 13, Falcon Nest
-0-	280	No. 12 and CR
80	1,040	Nos. 11, 12, 15 High Interest State Species and CR
-0-	8,240	Nos. 12, 15, 14, High Interest Federal Species and CR
-0-	5,200	Nos. 11, 12, 14, and 15
880	18,080	Total Unsuitable
35,151	139,601	Total Federal Coal by Alternative
34,271	121,521	Acceptable Acres by Alternative with Application of Mitigating Measures

* See Unsuitability Criteria No. 7, page A-5.

The unsuitability criteria with appropriate exceptions are:

3461.1 (a)(1) Criterion Number 1

All Federal lands included in the following land systems or categories shall be considered unsuitable: National Park System, National Wildlife Refuge System, National System of Trails, National Wilderness Preservation System, National Wild and Scenic Rivers System, National Recreation Areas, lands acquired with money derived from the Land and Water Conservation Fund, National Forests, and Federal lands in incorporated cities, towns, and villages.

Portions of the Continental Divide National Scenic Trail study corridor is routed through or adjacent to T. 4 N., R. 15 W. and T. 5 N., R. 15 W.

The actual treadway for the Continental Divide National Scenic Trail has not been established. In view of this situation, this criterion does not require the proposed study corridor to be designated as unsuitable for surface coal mining.

3461.1 (b)(1) Criterion Number 2

Federal lands that are within rights-of-way or easements or within surface leases for residential, commercial, industrial, or other public purposes. Federally owned surface shall be considered unsuitable.

Presently, there are eight authorized rights-of-way (ROW) located on Federal surface within the SACA and are displayed on Unsuitability Criterion Overlay No. 1. A listing of legal descriptions of these locations is included in the Divide Unit Resource Analysis Addendum (Step 3. Lands .41).

There are two ROW within the area being considered for coal leasing under Alternative Three, approximately five miles of buried telephone lines and approximately three miles of power lines.

Exceptions - These lands may be considered further for coal leasing if the Bureau of Land Management (BLM) determines that:

1. Coal development will not interfere with the purpose of the ROW.
2. It is impractical to exclude such areas due to the location of coal and the ROW use can be protected through appropriate lease stipulations.

3461.1 (c)(1) Criterion Number 3

Federal lands affected by section 522(e) (4) and (5) of the Surface Mining Control and Reclamation Act of 1977 shall be considered unsuitable. This includes lands within 100 feet of the outside line of the right-of-way of a public road or within 100 feet of a cemetery, or within 300 feet of any public building, school, church, community or institutional building or public park or within 300 feet of an occupied dwelling.

Presently there are approximately 16 dwellings located on Federal Lands within the SACA. All the dwellings are occupied and are displayed on Unsuitability Criterion Overlay No. 1. A listing of legal descriptions of these lands is included in the Divide Unit Resource Analysis Addendum (Step 3. Lands, .41).

The Alternative Three area contains three public roads as well as the 16 dwellings.

Exceptions - Lands within the SACA which are affected by this criterion can be considered suitable for further coal lease consideration with the following stipulations:

1. The lessee will consult with all owners of occupied dwellings and maintain or, with the owner's consent, adjust the designated 300-foot buffer zone.

2. If it is impractical to relocate the public road, mining will be prohibited within the road ROW and within a 100-foot buffer zone from the outside of the road ROW. Relocation approval of the authority having jurisdiction over the public road is necessary. A public hearing would be conducted to ensure that public interests are protected.

3461.1 (d)(1) Criterion Number 4

Federal lands designated as wilderness study areas shall be considered unsuitable while under review by the Administration and the Congress for possible wilderness designation. For any Federal land which is to be leased or mined prior to completion of the wilderness inventory by the surface management agency, the environmental assessment or impact statement on the lease sale or mine plan shall consider whether the land possesses the characteristics of a wilderness study area. If the finding is affirmative, the land shall be considered unsuitable, unless issuance of noncompetitive coal leases and mining on leases is authorized under the Wilderness Act and the Federal Land Policy and Management Act of 1976.

At this time, there are two wilderness study areas (WSAs) in the SACA which shall be considered unsuitable (Unsuitability Criterion, Overlay No. 2). These WSAs, Eagle Peak (NMO20-019) and Mesita Blanca (NMO20-018) were recommended as unsuitable for wilderness designation. During the period of review of these recommendations and until Congress acts on WSAs, they will remain unsuitable for coal leasing. If these areas are not designated as wilderness and are released by Congress from further wilderness review, this unsuitability criterion will no longer apply.

3461.1 (e)(1) Criterion Number 5

Scenic Federal lands designated by visual resource management analysis as Class I (an area of outstanding scenic quality or high visual sensitivity) but not currently on the National Register of Natural Landmarks shall be considered unsuitable. A lease may be issued if the surface management agency determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the designated area.

There are no visual resource management Class I areas in the SACA; therefore this criterion does not apply.

3461.1 (f)(1) Criterion Number 6

Federal lands under permit by the surface management agency, and being used for scientific studies involving food or fiber production, natural resources, or technology demonstrations and experiments shall be considered unsuitable for the duration of the study, demonstration or experiment, except where mining could be

conducted in such a way as to enhance or not jeopardize the purposes of the study, as determined by the surface management agency, or where the principal scientific user or agency gives written concurrence to all or certain methods of mining.

The SACA does not contain lands being utilized for this purpose.

3461.1 (g)(1) Criterion Number 7

All districts, sites, buildings, structures, and objects of historic, architectural, archeological, or cultural significance on Federal lands which are included in or eligible for inclusion in the National Register of Historic Places, and an appropriate buffer zone around the outside boundary of the designated property (to protect the inherent values of the property that make it eligible for listing in the National Register) as determined by the surface management agency, in consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Office shall be considered unsuitable.

At this time, the SACA contains 30 sites identified as either meeting the above criterion or proposed to be nominated to meet the criterion. The 30 sites are displayed on Unsuitability Criterion Overlay No. 3 and a corresponding listing of each site with legal description and summary is included in the Divide Unit Resource Analysis Addendum (URA 3. Cultural Resources).

As of Wednesday December 7, 1983, 3461.1(g)(1) Criterion Number 7 was changed (F.R. Vol. 48, No. 236, p. 54820) to read:

"(g)(1) Criterion Number 7

All publicly owned places on federal lands which are included in the National Register of Historic Places shall be considered unsuitable. This shall include any areas that the surface management agency determines, after consultation with the Advisory Council on Historic Preservation and the State Historic Preservation Officer, are necessary to protect the inherent values of the property that made it eligible for listing in the National Register."

No lands within the alternative areas meet this criterion. One National Register site (Cox Ranch) is located within a portion of the SACA which was dropped from further consideration.

NOTE: The archaeological significance of the sites described under the old criterion (43 CFR 3461.1, Oct. 83) meets the requirements of a multiple-resource or management consideration of a resource of a unique nature with local or regional importance. Mitigation of surface disturbance to these sites is not possible at this time. These sites are identified on Map 1 as unacceptable for further consideration for coal leasing.

3461.1 (h)(1) Criterion Number 8

Federal lands designated as natural areas or as National Natural Landmarks shall be considered unsuitable.

The SACA does not contain lands designated as natural areas or National Natural Landmarks.

(3461.1 (i)(1) Criterion Number 9

Federally designated critical habitat for threatened or endangered plant and animal species, and habitat for Federal threatened or endangered species which is determined by the Fish and Wildlife Service and the surface management agency to be of essential value and where the presence of threatened or endangered species has been scientifically documented, shall be considered unsuitable.

At this time, the SACA does not contain Federally designated critical habitat for threatened or endangered plant and animal species or habitat for threatened or endangered species determined to be of essential value by the Fish and Wildlife Service and the surface management agency.

3461.1 (j)(1) Criterion Number 10

Federal lands containing habitat determined to be critical or essential for plant or animal species listed by a state pursuant to state law as endangered or threatened shall be considered unsuitable.

At this time, the SACA does not contain Federal lands containing habitat determined to be critical or essential for plant or animal species listed by the State of New Mexico as endangered or threatened.

3461.1 (k)(1) Criterion Number 11

A bald or golden eagle nest or site on Federal lands that is determined to be active and an appropriate buffer zone of land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Eagle nesting habitat located within the SACA was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or group of nests located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide, Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1984, those locations identified as active were retained on the unsuitability criterion overlay.

Additional spring surveys will be conducted within the SACA yearly, results of these surveys may increase the amount of Federal mineral estate determined unsuitable because of this criterion.

Exceptions - The BLM with concurrence from the U.S. Fish and Wildlife Service (USFWS) has determined that mitigating measures are not practical nor desirable at this time.

3461.1 (1)(1) Criterion Number 12

Bald and golden eagle roost and concentration areas on Federal lands used during migration and wintering shall be considered unsuitable.

Year-round eagle roosting areas have been identified within the SACA and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these roosting areas is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46).

Exceptions - The BLM with concurrence from the USFWS has determined that mitigating measures are neither practical nor desirable at this time.

3461.1 (m)(1) Criterion Number 13

Federal lands containing a falcon (excluding kestrel) cliff nesting site with an active nest and a buffer zone of Federal land around the nest site shall be considered unsuitable. Consideration of availability of habitat for prey species and of terrain shall be included in the determination of buffer zones. Buffer zones shall be determined in consultation with the Fish and Wildlife Service.

Falcon nesting habitat located within the SACA was surveyed during the summer/fall of 1983. A Raptor Nest Report was initiated for each nest or suspected nest located. Tentative buffer zones were identified and are displayed on the Unsuitability Criterion Overlay No. 4. A listing of legal descriptions of these tentative buffer zones is included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). Following a nesting survey conducted during the spring of 1984, those locations determined to be active were retained on the unsuitability criterion overlay.

Additional spring surveys will be conducted within the SACA yearly, results of these surveys may increase the amount of federal mineral estate determined unsuitable because of this criterion.

Exceptions - The BLM with concurrence from the USFWS has determined that mitigating measures are neither practical nor desirable at this time.

3461.1 (n)(1) Criterion Number 14

Federal lands which are high priority habitat for migratory bird species of high Federal interest on a regional or national basis, as determined jointly by the surface management agency and the Fish and Wildlife Service, shall be considered unsuitable.

High priority habitat is defined as an area containing one or more limited environmental factors needed to support a population of at least one of the listed species. All high priority habitat must meet the following criteria:

1. It must be used regularly (use may be limited to one season during the year) by one or more of the listed species.
2. Its availability for uses such as feeding, reproduction, nesting, molting and/or wintering must be either (a) limited, or (b) supportive of concentrations of a listed species in the indicated coal region or subregion.
3. It must contain a combination of natural or man-made factors; eg., riparian vegetation, reservoirs, cliff sites, tall buildings, etc. . . that provide an essential quantity or quality of one or more of the habitat requirements of a listed species; ie., food, water, cover or space.

In order to assess an area as being unsuitable for all or certain stipulated methods of coal mining, both the "high Federal interest" and the "high priority habitat" aspects of this criterion must be met; eg., an area must support listed species and contain habitat of these species which meet all three of the above indicated habitat criteria.

The areas identified as meeting criterion number 14 are identified on the Unsuitability Overlay No. 4. A description and listing of locations of these areas are included in the Divide Unit Resource Analysis Addendum (Step 3, Wildlife .46). These areas are intermittent wetlands, playas or reservoirs which contain water during the spring and early summer, produce forbs during the summer and contain water during the fall and winter. These areas are known to be utilized during the spring and fall migrations by: white-faced ibis, western grebe, great blue heron, long-billed curlew and large concentrations of migratory waterfowl, which provide a prey base for wintering bald eagles. At this time no Ferruginous hawk nest locations are known to occur on Federal mineral estate within the SACA. Additional surveys will be conducted within the SACA yearly, results of these surveys may increase the amount of Federal mineral estate determined unsuitable because of this criteria.

Exceptions - The areas identified as meeting criterion 14 within the SACA can be considered suitable for further coal lease consideration by applying the following stipulations:

1. Affected wetlands and appropriate drainages sufficient to provide equal or enhanced habitat values will be replaced by the lessee on a site-specific basis.
2. The lessee will consult with the BLM, the BLM will consult with the surface owner, USFWS and New Mexico Department of Game and Fish (NMDGF) prior to alteration of the affected wetland.

3461.1 (o)(1) Criterion Number 15

Federal lands which the surface management agency and the state jointly agree are fish and wildlife habitat for resident species of high interest to the state and which are essential for maintaining these priority wildlife species shall be considered unsuitable.

The areas identified under criterion number 14 can also be applicable to criterion 15; in addition, the New Mexico Department of Game and Fish has identified prairie dogs (as being indicators of potential black-footed ferret habitat), mule deer and ferruginous hawks. Pronghorn antelope are included under this criterion because of the occurrence of an isolated herd utilizing a restricted habitat on a mesa top in the area.

Areas identified as mule deer winter range within the SACA are also adjacent to or included in the areas covered by criterion 2 - eagle roosting areas.

Those areas identified under criterion 14 are included in the exception for that criterion.

Exceptions - The areas identified as prairie dog locations can be considered suitable for further coal lease consideration by incorporating the following stipulations:

1. Proposed activities in or adjacent to the identified area will be preceded by a complete black-footed ferret inventory of the prairie dog colony.
2. All black-footed ferret inventory and survey procedures conducted by the lessee will be reviewed and approved by BLM, in consultation with the USFWS and the NMDGF.

3461.1 (p)(1) Criterion Number 16

Federal lands in riverine, coastal and special floodplains (100-year recurrence interval) on which the surface management agency determines that mining could not be undertaken without substantial threat of loss of life or property shall be considered unsuitable for all or certain stipulated methods of coal mining.

The first drainages that were analyzed for 100-year floodplain determination were those that drained at least ten square miles.

Watersheds were delineated for all of SACA and tentative floodplain transect locations established. Two or more transects were run for each probable floodplain location using the stadia method. Channel cross sections were drawn and flood stages marked on them. The USGS method from Water Resources Investigations 82-24, "Techniques for Estimating Flood Discharges for Unregulated Streams in New Mexico", and H.R. Hejl, Jr.'s (USGS) draft paper "Streamflow Characteristics as Related to Basin Characteristics in Strippable Coal-Resource Areas of Northwestern New Mexico" were used to determine the 100-year flood discharge. The resultant discharges computed using the two different methods were very close. Using the Manning's equation and knowing the channel geometry and stage relationship, the 100-year floodplain was then determined and drawn on 7.5 minute topographic maps. The floodplains were later verified with aerial photographs. To accurately determine the 100-year floodplain, USGS said that about 20 floodplain transects per area are needed and the floodplains should be mapped on one-foot contour interval maps. Due to the tight budget, large area, and lack of manpower, it was not possible to delineate the floodplains to that degree of accuracy.

Playas were delineated by aerial photo interpretation, vegetative types, and field observations. Four large detention dams that hold between 55 and 152 acre-feet of water were also considered unsuitable.

Although the floodplains are blocked out in 40-acre tracts, the actual floodplain usually represents a much smaller area. Actual floodplain boundaries have been digitized. There are 2,480.98 acres of floodplains overlying All Federal mineral estate and 295.05 acres overlying coal only.

Floodplains are displayed on Unsuitability Criteria Overlay No. 5. All of the 100-year occurrence floodplains in SACA can be mitigated.

3461.1 (q)(1) Criterion Number 17

Federal lands which have been committed by the surface management agency to use as municipal watersheds shall be considered unsuitable.

At this time, the SACA does not contain any municipal watersheds.

3461.1 (r)(1) Criterion Number 18

Federal lands with National Resource Waters, as identified by states in their water quality management plans, and a buffer zone of Federal lands 1/4 mile from the outer edge of the far banks of the water, shall be unsuitable.

Exclude Federal lands which the State of New Mexico has identified in their Water Quality Management Plan for resource use.

At this time, the SACA does not contain lands identified by the State of New Mexico as meeting this criterion.

3461.1 (s)(1) Criterion Number 19

Federal lands identified by the surface management agency, in consultation with the state in which they are located, as alluvial valley floors according to the definition in 3400.0-5(a) of this title, the standards in 30 CFR Part 822, the final alluvial valley floor guidelines of the Office of Surface Mining Reclamation and Enforcement when published, and approved state programs under the Surface Mining Control and Reclamation Act of 1977, where mining would interrupt, discontinue, or preclude farming, shall be considered unsuitable. Additionally, when mining Federal land outside an alluvial valley floor would materially damage the quantity or quality of water in surface or underground water systems that would supply alluvial valley floors, the land shall be considered unsuitable.

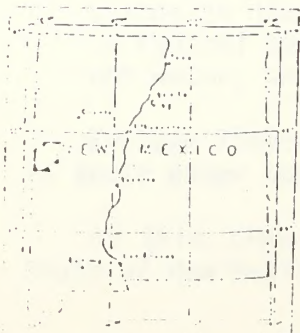
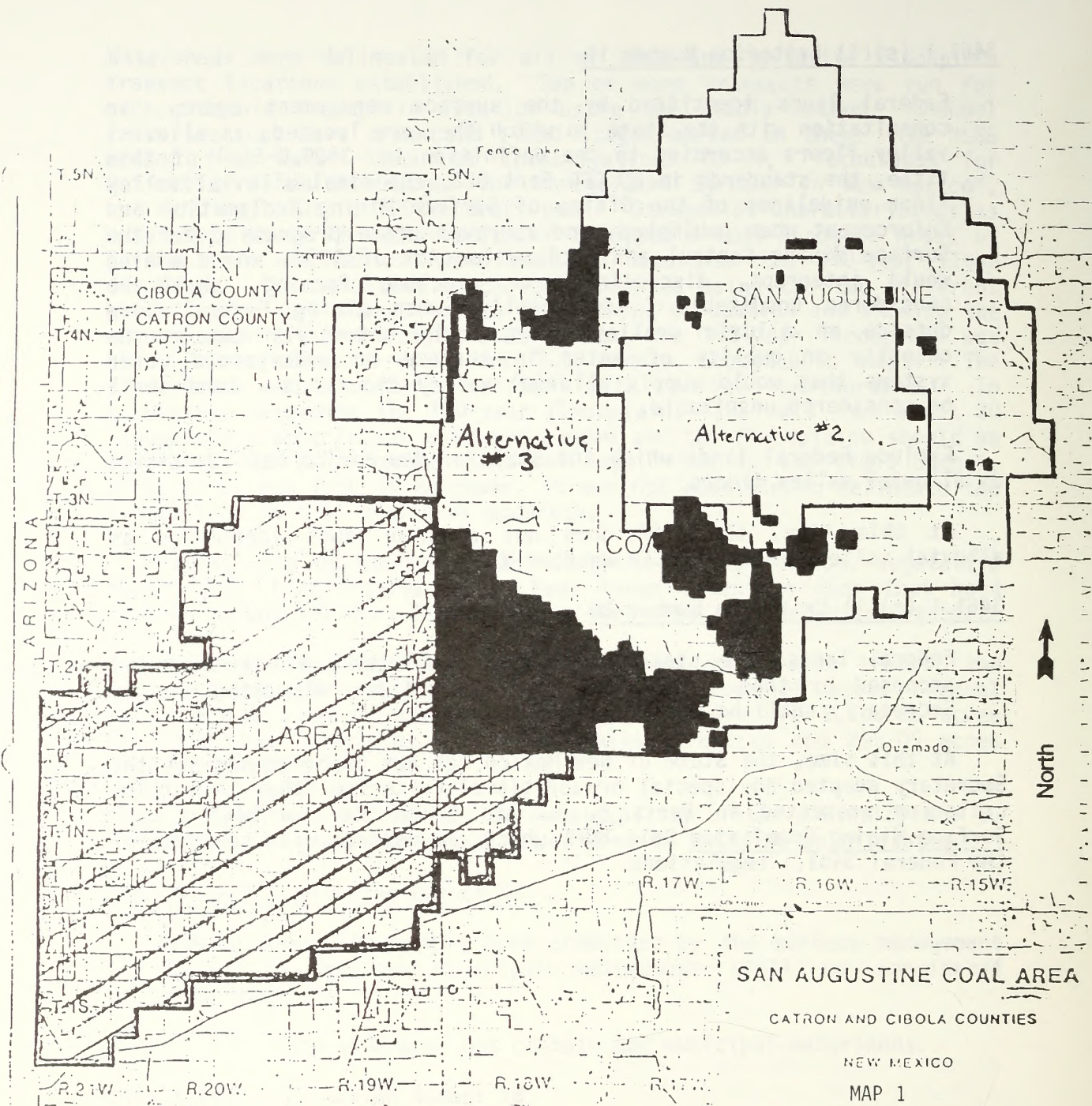
Exclude Federal lands which the State of New Mexico has identified as alluvial valley floors.

At this time, the SACA does not contain lands identified as alluvial valley floors (30 CFR Chapter VII).

3461.1 (t)(1) Criterion Number 20

Federal lands in a state to which is applicable a criterion (i) proposed by that state, and (ii) adopted by rulemaking by the Secretary, shall be considered unsuitable.

At this time, the State of New Mexico has not proposed nor has the Secretary adopted any special or additional criterion other than those criterion presented in Parts 2, 3, and 4 of the New Mexico Coal Surface Mining Commission Rule 80-1 which corresponds with segments of the Federal 3461.1 regulations.



Unsuitable and Unacceptable Areas

Scale 1 inch = 8 miles

GPO 844-034

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